ORIGINAL

Before the

Federal Communications Commission

Washington, D.C. 20554

In the matter of	)	
	)	
Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992	)	Et Docket No. 93-7
Compatibility Between Cable Systems and Consumer Electronics Equipment	)	

Introduction

Comcast Cable Communications, Inc. through its owned and managed systems, currently delivers cable service to two million eight hundred thousand (2.8M) subscribers, with almost two million (1.96M) converters operational. Approximately two-thirds of these units are addressable and one-third non-addressable. There are over one hundred different channel lineups in sixty-five business centers with most using combinations of positive and negative traps along with addressability as the security technology. Only five systems do not offer some form of addressable security, while only one system is secured with 100% addressability. We offer this information to show the complexity and variety existing in our cable systems today.

Over the next few years we plan to increase the bandwidth of most of our systems to make room for the introduction of digital compression, HDTV, and other new services now in development with the goal of being able to supply consumers with the most advanced and diverse array of video services. And while we support the Commission's goals, we find merit in the views of commenters who propose revisions to some of the proposals.

With regard to specific comments received by the Commission, we offer the following Reply Comments:

Paragraph 12. <u>Proposals for Existing Equipment</u>

Comcast currently allows the subscriber to connect directly to the cable system to receive non-scrambled pictures and supports the Commission's proposal provided that the cable operator is permitted to charge for any supplemental equipment. As Time Warner, points out the cable subscriber is protected against unreasonable or excessive charges by the 1992 Cable Act and existing Commission rules which assure that charges for supplemental equipment do not exceed the actual cost to provide such equipment.[1]

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[1] Comments made by Time Warner dated January 25, 1994 @ page 3

Additionally, Comcast concurs with the comments of Intermedia Partners that it is inappropriate and unnecessary for the Commission to mandate delivery of signals directly to a subscriber's receiver or VCR without passing through a converter.[2]

Many converter units in operation today have the ability, built-in, to pass clear signal to the subscriber's set. Restricting that function, by definition, would not benefit those subscribers that have use of that style unit and would needlessly require replacement of those units.

Paragraph 16. Remote Control Compatibility

The Commission proposes to require cable systems that offer remote control capability to notify subscribers annually which remotes are compatible with their equipment. Comcast strongly concurs with those commenters who state that such an arrangement is impractical. Comcast urges the Commission to consider the dilemma operators and subscribers alike will face by the adoption of such a rule.

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[2] Comments made by Intermedia Partners dated January 25,94 @ page 11.

As commenters such as Intermedia Partners have noted, the marketplace today offers many remote devices to the consumer, including so-called universal remotes which control the TV, VCR and converter. Comcast does not take issue with the idea of placing more information in the consumer's hands. But the Commission's proposal fails to account for basic practical issues and unfairly places the entire burden on the cable operator.

First this regulation, as it is proposed, fails to answer several threshold issues. For example, how is "compatibility" defined? If a remote works some, but not all of the features on a cable converter, is the unit listed as compatible or not compatible?[3] Comcast has tested several after market remote controls and found that not all of the remotes work all of the functions that are offered with the original units. After market remotes present a special problem inasmuch as they work the same functions but are labelled differently, thus making it necessary for the viewer to do translations while operating the remote.

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[3] Attached as exhibit A is a partial Feature Matrix, comparing the features found on representative samples of converter, consumer and universal remote controls. Also attached, are photo copies of the actual remotes compared.

The Matrix shows the complexity of this issue. Remotes with common features are labeled differently. Some features are unique to specific remotes. None of the universal remotes offer all of the features of both the converter and consumer remotes.

Some of the universal remotes are missing select buttons which are on the converter remote, functions which allow the subscriber to by pay per view or exercise parental control.

Looking at the remote directly demonstrates how varied the devices are. Asking cable operators to test this for hundreds of

Second, since the cable operator has no way of knowing what devices the subscriber owns, there is a possibility that a purchased remote will function well with a converter but not with the subscriber's television set. Subscribers will be less than satisfied should they purchase a remote on the list only to find it doesn't work to their expectations. Comcast has reviewed many consumer device remotes and found that many have over 50 buttons or functions, making 100% compatibility very unlikely.

And aside from the problems consumers may experience, a number of other practical issues present themselves. For instance, who will settle disputes arising when a cable operator declines to put a remote on the list if the cable operator claims the remote doesn't function properly? Who supplies the cable operator with the remotes to test and what is an operator's liability for inadvertent failure to include a device or location on the list? The only reasonable solution is to make the manufacturer of the remote responsible to the consumer by listing which converters its device will work. Since there are a relatively small number of both converter and remote manufacturers, and the manufacturers do not design their products in a vacuum, a manufacturer is well aware at the outset with which converters its devices will work. There is thus little reason for cable operators, who have neither the laboratories nor inventory to conduct such tests to perform

[3] cont. devices is a considerable task. For Comcast, each of our 100 systems offers a mix of converters compounding the matrix.

this work.

Requiring each manufacturer to identify with which components its product is compatible will avoid hundreds of cable operators having to needlessly duplicate research, with possible conflicting results. From auto parts to vacuum cleaner bags, it is the accepted responsibility of the manufacturer to identify those makes and models with which it's product will work. There is no reason for the Commission to adopt a different course here.

Comcast further agrees with Time Warner's proposal that the cable operator should be required to provide the subscriber with an informative statement acknowledging that after market remotes will work with cable converters and the model number of the converter or how the subscriber can determine what the model number is. Then the consumer can go to the retail outlet with the model numbers of their equipment and the converter model number and utilize the expertise of the retail operator to make an informed selection.

Paragraph 30. Decoder Interface Equipment

Comcast has participated in the working group that generated the new cable/consumer interface in the Joint Engineering Committee and we support the adoption of the proposal presented by the Cable-Consumer Electronics Compatibility Advisory Group.

While Comcast supports the concept of a set back device to make the consumer set truly cable ready the Commission's proposal that operators provide this unit without charge to the subscriber, is misguided. Since none of the set back devices have been built which support the features offered in the high end set top converter, the actual cost of the unit is not yet known. Estimates range from 65 to 80 percent of the cost of the converters available today. Consumers will therefore receive a lower monthly rate as required by the 1992 Cable Act. As Intermedia Partners notes the cost of a digital box will be approximately $300. These network modernization costs are not ones the cable operator can be reasonably expected to absorb given the regulatory scheme the Commission has adopted which is reducing system revenues across the board, and allows - no special recovery for network improvement costs.

To the contrary, there is no logical distinction why these costs should be treated differently than converter and other premises equipment costs. The Commission should therefore permit recovery of the cost of any set-back unit in accordance with Section 76.923 as Time Warner and others urge.[4]

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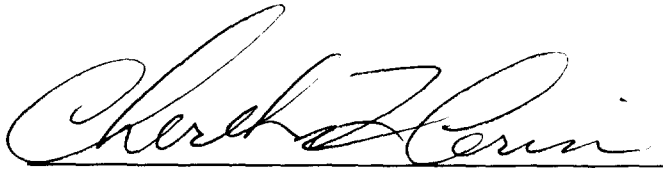
[4] Comments of Time Warner dated January 25, 1994 @ page 14.

Conclusion

Comcast supports the Commission's goals to develop a better consumer interface, provide consumers with more information regarding their options to purchase compatible equipment and diminish the problems inherent with converter security. But the burden of these changes cannot, for logical and financial reasons be borne by cable operators alone. They must be shared among all the affected parties in a reasonable manner.



2/03/94

Charles L. Cerino
Director of Technical Operations
Comcast Cable Communications, Inc.

Date

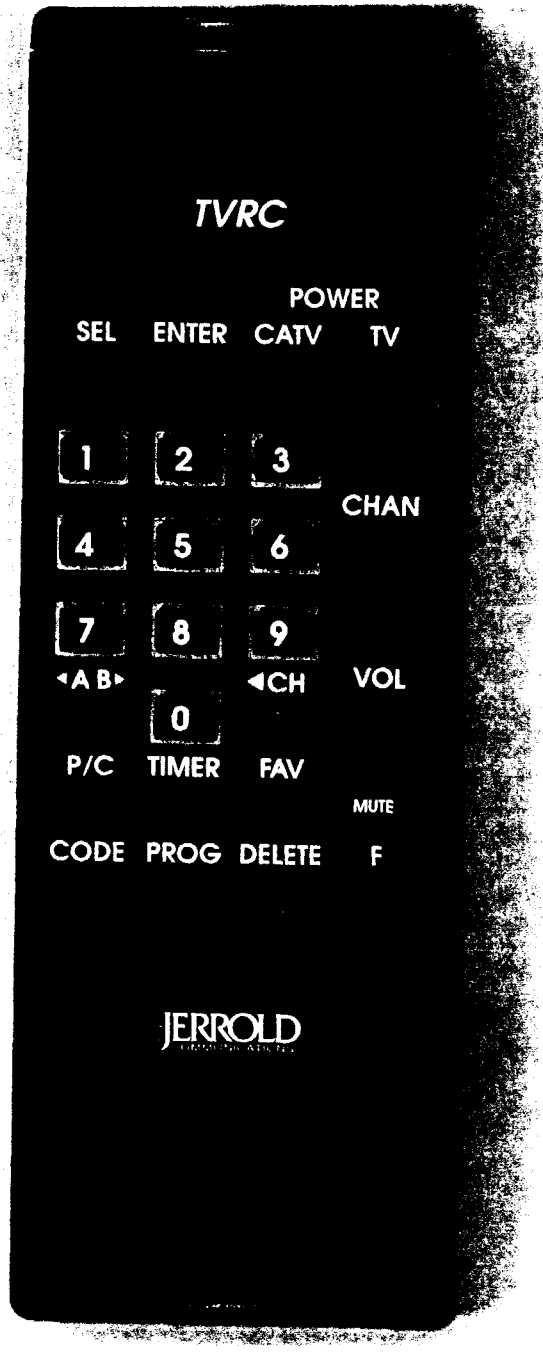
EXHIBIT A

FEATURE MATRIX

	CONVERTER REMOTES			CONSUMER REMOTES			UNIVERSAL REMOTES		
FEATURE	Jerrold	Tocom	S.A.	Sony	Hitachi	Zenith	G.E.	US Elec.	Gemini
0 – 9	X	X	X	X	X	X	X	X	X
POWER	X	X	X	X	X	X	X	X	X
VOL +/–	X	X	X	X	X	X	X	X	X
CHAN +/–	X	X	X	X	X	X	X	X	X
SELECT	SEL	BUY	SELECT					SEL	
ENTER	ENTER	ENT/CLR				ENTER	ENTER	ENTER	ENT
FAVORITE	FAV		FAVORITE					FAV	
LAST CHAN	<CH	LAST CH	LAST		LST–CH	FLASHBK	LCV	LCH	RCL
MUTE	X	X	X		X	X	X	X	
FUNCTION	F	ALT					FUNCTION	F	
TIMER	TIMER	TIMER						TIMER	

VCR SPECIFIC

PLAY				X	X	X	X	X	X
STOP				X	X	X	X	X	X
FAST FWD.				X	X	X	X	X	X
FAST REW				X	X	X	X	X	X
RECORD				X	X	X	X	X	X
STILL				X	X				
F. ADV				X	X				
VTR/TV				X	X	X	X	X	X
SLOW				X					
SEARCH				X	X	X			
MENU NAV				X		X			


TVRC
POWER
SEL
ENTER
CATV
TV
1
2
3
CHAN
4
5
6
7
8
9
◂A B▸
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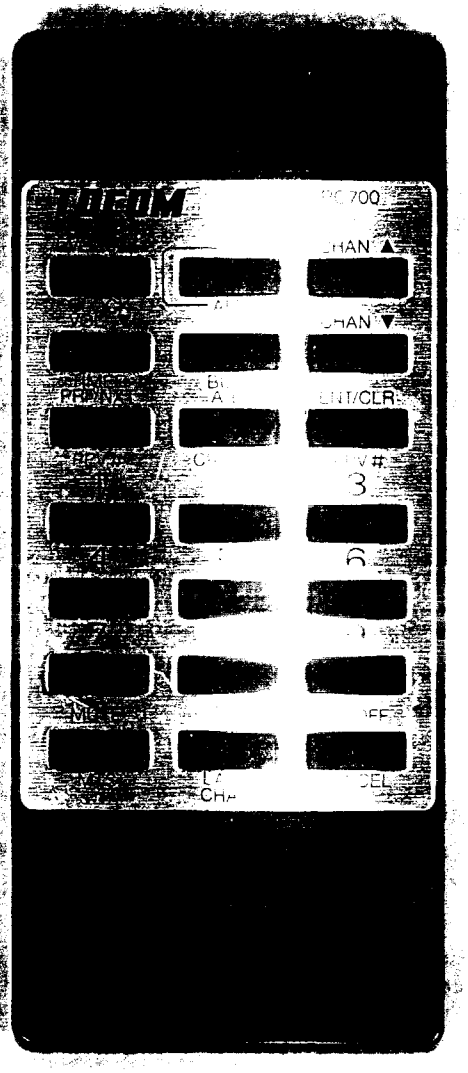
VOL
0
P/C
TIMER
FAV
MUTE
CODE
PROG
DELETE
F
JERROLD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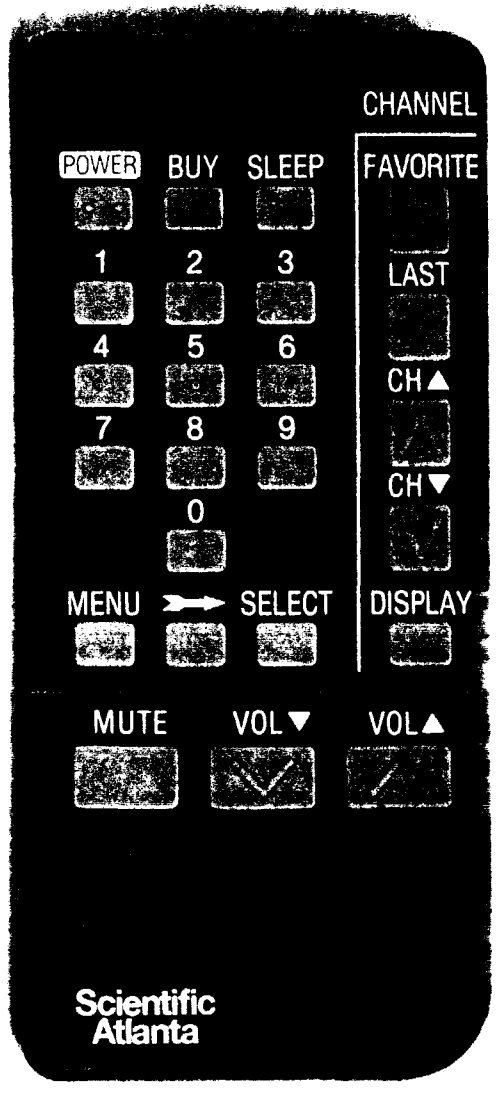
CHANNEL
POWER
BUY
SLEEP
FAVORITE
1
2
3
LAST
4
5
6
CH ▲
7
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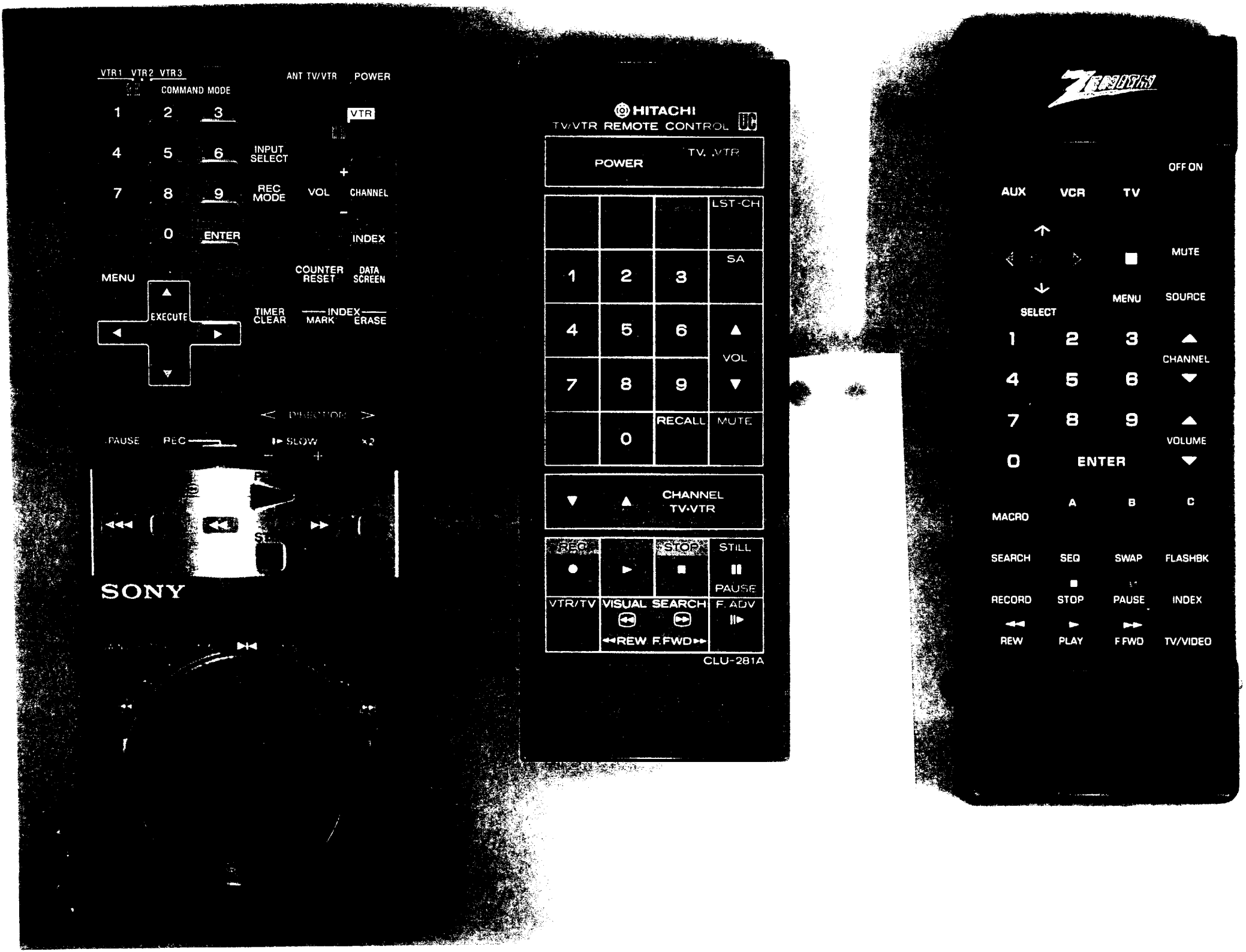
CH ▼
0
MENU
SELECT
DISPLAY
MUTE
VOL ▼
VOL ▲
Scientific
Atlanta


VTR1 VTR2 VTR3
COMMAND MODE
ANT TV/VTR
POWER
1 2 3
VTR
4 5 6
INPUT SELECT
7 8 9
REC MODE
VOL
CHANNEL
0
ENTER
INDEX
MENU
COUNTER RESET
DATA SCREEN
EXECUTE
TIMER CLEAR
INDEX MARK
INDEX ERASE
DIRECTION
PAUSE
REC
SLOW
x2
SONY
HITACHI
TV/VTR REMOTE CONTROL
POWER
TV, VTR
LST-CH
SA
VOL
RECALL
MUTE
CHANNEL TV-VTR
REC
STOP
STILL
PAUSE
VTR/TV
VISUAL SEARCH
REW
F.FWD
F. ADV
CLU-281A
OFF ON
AUX
VCR
TV
MUTE
SELECT
MENU
SOURCE
CHANNEL
VOLUME
ENTER
MACRO
A
B
C
SEARCH
SEQ
SWAP
FLASHBK
RECORD
STOP
PAUSE
INDEX
REW
PLAY
F FWD
TV/VIDEO


CONTROL CENTRAL
PROGRAMMABLE
SYSTEM
CATV
TV
DCR
VCR
POWER
1
2
3
VOL +
4
5
6
7
8
9
VOL –
LCH
0
ENTER
MUTE
CH +
FAV
SEL
A/B
P/C
TIMER
F
CH –
CODE
PROG
DELETE
SETUP
RESET
ADD
ERASE
DISPLAY
SPEED
PROG
TIMER
SLOW
REC
OTR
STOP
TV/VCR
REW
PAUSE
PLAY
FF
SCAN
SCAN
PROG
LOCK
ENTER
GS ELECTRONICS
Quikset